

CLAIMS

1. A copper or copper alloy target/copper alloy backing plate assembly for use in magnetron sputtering, wherein the copper alloy backing plate is formed from low beryllium copper alloy containing 0.2 to 0.5wt% of Be, or Cu-Ni-Si alloy or Cu-Ni-Si-based alloy containing 2 to 4wt% of Ni and 0.3 to 0.9wt% of Si.
2. The copper or copper alloy target/copper alloy backing plate assembly according to claim 1, wherein the Cu-Ni-Si-based alloy backing plate is formed from Cu-Ni-Si-based alloy containing 2 to 4wt% of Ni, 0.3 to 0.9wt% of Si, 0.1 to 0.9wt% of Cr or 0.1 to 0.9wt% of Mg.
3. A copper or copper alloy target/copper alloy backing plate assembly for use in magnetron sputtering, wherein the copper alloy backing plate has an electrical conductivity of 35 to 60% (IACS), and 0.2% proof stress of 400 to 850MPa.
4. The copper or copper alloy target/copper alloy backing plate assembly according to claim 1 or claim 2, wherein the copper alloy backing plate has an electrical conductivity of 35 to 60% (IACS), and 0.2% proof stress of 400 to 850MPa.
5. The copper or copper alloy target/copper alloy backing plate assembly according to any one of claims 1 to 4, wherein the copper or copper alloy target/copper alloy backing plate assembly is diffusion bonded.
6. The copper or copper alloy target/copper alloy backing plate assembly according to claim 5, wherein the diffusion bonding temperature is 175 to 450°C.